REMARKS

STATUS OF THE CLAIMS

In accordance with the foregoing, claims 1-19 and 22-30 have been amended. Claims 1-38 are pending and under consideration.

No new matter is being presented, and reconsideration of the pending claims is respectfully requested.

REJECTIONS FOR OBVIOUSNESS UNDER 35 U.S.C. §103(a)

The rejections of claims 1-38 are respectfully traversed and reconsideration is requested.

CLAIMS 1, 2, 11, 14, 17, 18, 22, 23 AND 25-29

Claims 1, 2, 11, 14, 17, 18, 22, 23 and 25-29 are rejected as being unpatentable over Koontz (U.S. Patent No. 6,535,886 B1) in view of Fisher et al. (U.S. Patent No. 6,257,128 B1) and further in view of Hu et al. (U.S. Patent No. 5,748,188).

Koontz relates to a method for compressing a file having a data structure in which occurrences of each segment are counted (see Fig. 9), an index is provided for a segment having a large count value, and the segment and the index are correlated with each other and retained in a list (see Fig. 5). A file is compressed by replacing a segment with the index provided for the segment. Fig. 8 shows a state prior to compression and Fig. 9 shows a state after the compression.

Koontz teaches a technique of compressing data to reduce a data amount of each individual file based on information common to a number of files, but the compression manner of Koontz is totally different from that of the present invention.

Koontz replaces combinations of a segment with an index in accordance with the list of segments and indexes previously obtained, and therefore has to retrieve an index regardless of whether a segment corresponding to the index is retained in the list is judged or when the corresponding segment is retained in the list.

On the other hand, claim 1, for example, recites a tag list obtaining unit for obtaining a single tag list, common to said plural structured documents, that lists start markup tags and end markup tags in the order that they appear in the structured documents; and a structured document compressing unit for, by replacing each of the start markup tags and end markup tags in individual said plural structured documents that correspond to the tag list in said plural structured documents with a single predetermined delimiter code, generating a plurality of

compressed documents comprising element contents and predetermined delimiter codes.

Thus, the present invention retains a list which has start markup tags and end markup tags of object data sequentially extracted from the top of the object data and replaces the tags with predetermined delimiter codes, so that no retrieving is required either in compression and decompression. Therefore, a structured document can be compressed and decompressed in a simple operation.

Fisher et al. (hereinafter "Fisher") relates to a system for manufacturing a computer which has a hardware configuration and a software configuration in accordance with an order.

Fig. 17 of Fisher discloses a method for converting a file which describes an ordered software configuration into a file using a tag for a CCP database. The applicant supposes that the program for the conversion retains information about a group of tags of the database; however, "tags" as described in Fisher are totally different from "tags" of the present invention.

Fisher discloses mere data-format conversion which requires a process for each of the tags.

On the other hand, claim 1, for example, recites a structured document compressing unit for, by replacing each of the start markup tags and end markup tags in individual said plural structured documents that correspond to the tag list in said plural structured documents with a single predetermined delimiter code, generating a plurality of compressed documents comprising element contents and predetermined delimiter codes.

Thus, the present invention retains a list having tags of object data extracted sequentially from the top of the object data and replaces the tags with predetermined delimiter codes, irrespective of the kinds of the tags, so that a structured document is compressed.

The Examiner states, on page 3 of the Office Action, that Fisher discloses generating a plurality of compressed documents in which tags in individual structured documents are replaced with predetermined delimiter codes, citing column 31, lines 30-40. The portion of Fisher cited by the Examiner merely discloses that tags are stored in a database; however, the Examiner asserts that storing tags in a database "inherently involves replacement by delimiters."

It is respectfully submitted that *replacing* tags with predetermined delimiter codes, as recited in claim 1, for example, is clearly distinguishable from storing tags in a database, as taught by Fisher.

As shown in Fig. 4 of the present application, structured-data compression can be accomplished simply by *replacing* tags of the structured document with predetermined delimiter codes. The compressed data can be decompressed by replacing the delimiter codes with tags requiring no additional processes (e.g., retrieving processes, as required by Koontz), since the

markup tags are listed in the order that they appear in the structured documents, as recited in claim 1.

Hu et al. (hereinafter "Hu") discusses a method of sending *graphical information* of a hypertext document. The graphical information is sent using tag extensions of the hypertext markup language. (Column 1, lines 52-63). Thus, the system of Hu does not relate to an apparatus for compression and decompression of structured documents having a common data structure, as disclosed by the present invention. Therefore, it would not have been obvious to one with ordinary skill in the art to combine the teachings of Hu with Fisher and Koontz.

Finally, The Examiner has failed to establish *prima facie* obviousness, as required by MPEP 2143. The Examiner has provided no suggestion or motivation to modify Koontz, by combining it with Fisher and Hu, as required by MPEP 2143.01. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the invention where there is a suggestion or motivation to do so found in the references themselves.

Therefore, it is respectfully submitted that claim 1 patentably distinguishes over the prior art.

Claim 2 depends from claim 1 and inherits the patentable recitations thereof. Thus, it is respectfully submitted that claim 2 patentably distinguishes over the prior art.

Independent claims 11, 14, 17, 18, 22, 23 and 25-29 all include compressed documents, generated by replacing each of start markup tags and end markup tags with a single predetermined delimiter code, where the compressed documents comprise element contents and predetermined delimiter codes. Therefore, it is respectfully submitted that claims 11, 14, 17, 18, 22, 23 and 25-29 patentably distinguish over the prior art.

CLAIMS 3, 12 AND 15

Claims 3, 12 and 15 are rejected as being unpatentable over Fisher in view of Hu.

Independent claims 3, 12 and 15 all include replacing start markup tags and end markup tags with a single predetermined delimiter code, where the compressed documents comprise element contents and predetermined delimiter codes. As stated above, neither Fisher not Hu, alone or in combination, teaches or suggests at least these features of the present invention.

Therefore, it is respectfully submitted that claims 3, 12 and 15 patentably distinguish over the prior art.

CLAIMS 4, 13, 16, 19, 24 AND 30

Claims 4, 13, 16, 19, 24 and 30 are rejected as being unpatentable over Koontz in view

of Fisher, in view of Arnold, and further in view of Hu.

Independent claims 4, 13, 16, 19, 24 and 30 all include replacing start markup tags and end markup tags with a single predetermined delimiter code, where the compressed documents comprise element contents and predetermined delimiter codes. Therefore, for the reasons set forth above, claims 4, 13, 16, 19, 24 and 30 patentably distinguish over Koontz, Fisher and Hu.

Further, the Examiner states that Arnold et al. (hereinafter "Arnold") discusses extraction of subordinate pieces of information from documents, which the Examiner asserts is analogous to "subdocuments," as recited in the present invention. However, claims 4, 13, 16, 19, 24 and 30 recite extracting a subdocument, *which is a region sandwiched between a start markup tag and an end markup tag that has a predetermined element name*. The Examiner makes no mention of this recitation, and it is respectfully submitted that Arnold does not disclose this feature, let alone a sufficient basis showing motivation to combine Arnold with the other three (3) references.

CLAIM 5

Claim 5 is rejected as being unpatentable over Fisher, in view of Hind et al. (U.S. Patent No. 6,463,440 B1) further in view of Hu.

Claim 5 depends from claim 3 which, as stated above, patentably distinguishes over Fisher and Hu.

Hind et al. (hereinafter "Hind") is merely cited as disclosing the ability "to identify attributes and process them to replace them with delimiters."

Thus, it is respectfully submitted that Hind does not teach or suggest replacing *markup* tags with *predetermined delimiter codes*, as recited in claim 3. Therefore, it is respectfully submitted that claim 5 patentably distinguishes over the prior art.

CLAIMS 6 AND 20

Claims 6 and 20 are rejected as being unpatentable over Koontz in view of Fisher, in view of Arnold, further in view of Hind, further in view of Hu.

Claim 6 is rejected under the same rationale as claim 5, and claim 20 is rejected under the same rationale as claim 17.

As stated above claims 5 and 17 patentably distinguish over the prior art and, thus, for at least the reasons provided above for claims 5 and 17, it is respectfully submitted that claims 6 and 20 patentably distinguish over the prior art.

Further, the Office Action has not provided a sufficient basis of motivation for combining

these five (5) references.

CLAIM 7

Claim 7 is rejected as being unpatentable over Fisher in view of Motoyama et al. (U.S. Patent No. 5,504,891) further in view of Goodman (U.S. Patent No. 5,999,929) further in view of Hu.

Claim 7 depends from claim 3 and inherits the patentable recitations thereof. Thus, claim 7 patentably distinguishes over Fisher and Hu.

Motoyama et al. is merely cited as teaches the use of a list to hold and rearrange a list of tags.

Goodman is merely cited as providing missing tags in structured documents in order to allow successful display of web browsers.

Thus, it is respectfully submitted that neither Motoyama et al. nor Goodman, alone or in combination, teaches or suggests the feature of claim 3, as described above.

Therefore, it is respectfully submitted that claim 7 patentably distinguishes over the prior art, and moreover the Office Action has not provided sufficient basis of motivation for combining these four (4) references.

CLAIM 8

Claim 8 is rejected as being unpatentable over Koontz, in view of Arnold, further in view of Fisher, further in view of Motoyama, further in view of Goodman, further in view of Hu.

Claim 8 depends from claim 4 and inherits the patentable recitations thereof. Further, claim 8 is rejected under the same rationale as claim 7. Thus, for at least the reasons provided above for claim 7, it is respectfully submitted that claim 8 patentably distinguishes over the prior art, and moreover the Office Action has not provided sufficient basis of motivation for combining these six (6) references.

CLAIM 9

Claim 9 is rejected as being unpatentable over Fisher, further in view of Motoyama, further in view of Goodman, further in view of Hind, further in view of Hu.

Claim 9 depends from claim 3 and inherits the patentable recitations thereof. Therefore, it is respectfully submitted that claim 9 patentably distinguishes over the prior art, and moreover the Office Action has not provided sufficient basis of motivation for combining these five (5) references.

CLAIM 10

Claims 10 is rejected as being unpatentable over Koontz, further in view of Fisher, further in view of Arnold, further in view of Motoyama, further in view of Goodman, further in view of Hind, and further in view of Hu.

Claim 10 depends from claim 4 and inherits the patentable recitations thereof. Therefore, it is respectfully submitted that claim 10 patentably distinguishes over the prior art, and moreover the Office Action has not provided sufficient basis of motivation for combining these seven (7) references.

CLAIM 21

Claim 21 is rejected as being unpatentable over Koontz, further in view of Fisher, further in view of Arnold, further in view of Hind, further in view of Hu.

Claim 21 depends from claim 19 and inherits the patentable recitations thereof. Further, claim 21 is rejected under the same rationale as claim 20. Therefore, for at least the reasons provided above for claim 20, it is respectfully submitted that claim 21 patentably distinguishes over the prior art, and moreover the Office Action has not provided sufficient basis of motivation for combining these five (5) references.

CLAIMS 31 AND 35

Claims 31 and 35 are rejected as being unpatentable over Koontz, further in view of Fisher, further in view of Morel et al. (U.S. Patent No. 5,572,731), further in view of Hu.

Claims 31 and 35 depend from claim 29 which, as stated above, patentably distinguishes over Koontz, Fisher and Hu.

Morel et al. is merely cited as disclosing a sequencing unit that manages links between objects in order to follow sequences of semantic objects.

It is further submitted that Morel et al. does not disclose the features of independent claims 29, as described above.

Therefore, it is respectfully submitted that claims 31 and 35 patentably distinguish over the prior art, and moreover the Office Action has not provided sufficient basis of motivation for combining these four (4) references.

CLAIMS 32 AND 36

Claims 32 and 36 are rejected as being unpatentable over Koontz, further in view of

Fisher, further in view of Arnold, further in view of Morel, further in view of Hu..

Claims 32 and 36 depend from claim 30 and inherit the patentable recitations thereof. Therefore, for at least the reasons provided above for independent claim 30, it is respectfully submitted that claims 32 and 36 patentably distinguish over the prior art, and moreover the Office Action has not provided sufficient basis of motivation for combining these five (5) references.

CLAIMS 33 AND 37

Claims 33 and 37 are rejected as being unpatentable over Koontz, further in view of Fisher, further in view of Tuniman et al. (U.S. Patent No. 6,507,874 B1), further in view of Hu.

Claims 33 and 37 depend from claim 30 and inherit the patentable recitations thereof. Further, Tuniman et al. is merely cited as disclosing management of identification information in conjunction with lists to allow successful routing.

Therefore, for at least the reasons provided above for independent claim 30, it is respectfully submitted that claims 33 and 37 patentably distinguish over the prior art, and moreover the Office Action has not provided sufficient basis of motivation for combining these four (4) references.

CLAIMS 34 AND 38

Claims 34 and 38 are rejected as being unpatentable over Koontz, further in view of Fisher, further in view of Arnold, further in view of Tuniman, further in view of Hu.

Claims 34 and 38 depend from claim 30 and inherit the patentable recitations thereof. Further, Claims 34 and 38 are rejected for the same rationale as claims 31 and 35, respectively.

Therefore, for at least the reasons provided above for independent claim 30 and dependent claims 31 and 35, it is respectfully submitted that claims 34 and 38 patentably distinguish over the prior art, and moreover the Office Action has not provided sufficient basis of motivation for combining these five (5) references.

CONCLUSION

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot. There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance.

Finally, if there are any formal matters remaining after this response, the Examiner is

requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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